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SCHNADER HARRISON SEGAL & LEWIS, LLP
1600 MARKET STREET
SUITE 3600
PHILADELPHIA, PA 19103

[REDACTED]

MILLER, MARTIN E

| ART UNIT | PAPER NUMBER |
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| 2623 | [REDACTED] |

DATE MAILED: 10/03/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/976,945 | PINEAU, PASCAL |
| | Examiner | Art Unit |
| | Martin Miller | 2623 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on _____.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-10 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
 5) Claim(s) ____ is/are allowed.
 6) Claim(s) 1-10 is/are rejected.
 7) Claim(s) ____ is/are objected to.
 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 11) The proposed drawing correction filed on ____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1.) Certified copies of the priority documents have been received.
 2.) Certified copies of the priority documents have been received in Application No. _____.
 3.) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) The translation of the foreign language provisional application has been received.
 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for priority under 35 U.S.C. 119(a)-(d) based upon an application filed in France on April 14, 2000. A claim for priority under 35 U.S.C. 119(a)-(d) cannot be based on said application, since the United States application was filed more than twelve months thereafter.

Information Disclosure Statement

2. The examiner has considered the IDS filed and an initialed copy is included with this office action.

Remarks

3. Applicant is advised that should claims 4 and 5 be found allowable, claims 9 and 10 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5, 7-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1, it recites the limitation of an "image base". But there is no description as to what the applicant means by an image base, therefore, the claim is indefinite.

As per claims 5 and 10, they recite the limitation of a "reproduction bank". But there is no description as to what the applicant means by an reproduction bank, therefore, the claim is indefinite.

As per claim 4, it recites a "performance of a virtual echographic examination (display of sectional planes from a three-dimensional matrix)". The examiner in interpreting the parenthetical to be the definition of the virtual echographic examination recited in the claim. Otherwise, the claim is indefinite due to a conflict between the claim text and the following parenthetical.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collet-Billon, US 5540229 and Zulauf, US 5482043.

As per claim 1, Collet-Billon teaches:

means for transmitting a digital image (host ultrasonic echograph 31, figure 4, col. 6, l. 63-col. 7, l. 6);
an image base (col. 5, ll. 35-40);
a sensor (3D probe, fig. 2, element 3);

means for referencing positions on a dummy (fig. 2, element 18, col. 5, ll. 59-64, col. 6, ll. 1-10);

means for recalculation of a three-dimensional image (conversion, col. 5, ll. 40-43); Collet-Billon does not teach that a videoconferencing capability is part of the his system. Zulauf teaches transmitting 2 dimensional ultrasonic imagery to a remote location (col. 5, ll. 57-67).

Zulauf goes on to teach:

means for receiving expert assessment (col. 2, ll. 11-15, 54-56, col. 3, ll. 33-37, col. 4, ll. 17-20) results combining videoconference ability (col. 2, ll. 54-56, col. 4, ll. 40-45, col. 5, ll. 38-42, 45-51) and the possibility of remote manipulation (col. 4, ll. 20-25) of two-dimensional images.

It would have been obvious to one of ordinary skill in the art to utilize the three dimensional image processing capabilities of Collet-Billon in the image diagnostic and remote videoconferencing system of Zulauf to provide rural community and smaller hospitals access to the services of full-time radiological professional and to be able to conduct such examinations with the remote site radiologist viewing, interpreting and controlling the examination. Such a system allows the patient to sit for one examination and allows for the possibility of performing alternative procedures, if required (col. 5, ll. 57-58). Furthermore, Zulauf teaches that his video system can upgraded for use with different video formats and line rates (col. 6, ll. 16-20).

As per claim 2, Collet-Billon teaches:

means for linking multiple physical devices (VME bus, col. 4, ll. 56-60).

As per claims 3 and 8, Collet-Billon teaches:

a central unit (figure 1, central processing unit),

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a display screen (fig. 1, element 6),

a high-definition digitalization card enabling acquisition of an echograph video signal (a central card 11, col. 4, l. 52, col. 6, ll. 66-67),

a three-dimensional position sensor giving spatial positions of the echographic probe (col. 6, ll. 10-14),

But Collet-Billon does not teach the videoconference means, however, Zulauf teaches:
videoconference means integrating an electronic card and two-way video input (col. 5, ll. 44-50), color camera (well known), a microphone and a headset (telephone headset obviously incorporates a microphone, fig. 1, element 80),

means for connecting to a communication network and echograph (col. 4, ll. 40-44, col. 6, ll. 6-16), and

means for temporarily storing data (col. 6, ll. 16-20 or Collet-Billon, col. 2, ll. 49-55) acquired from the echograph until transmitted to a selected recipient then exploited in the videoconference. Zulauf obviously understands that the speed of data transmission is dictated by the line rate of the communications system and therefore, some data buffering may be required (col. 6, ll. 15-20).

As per claims 4 and 9, Collet-Billon teaches:

performance of a virtual echographic examination (display of sectional planes from a three-dimensional matrix) (col. 2, ll. 8-12, 60-63). **NOTE:** The examiner in interpreting the parenthetical to be the definition of the virtual echographic examination.

But Collet-Billon does not teach the transmission of the examination data. However, Zulauf teaches:

the system of claim 1 adapted to receive a file (results of exam) for expert assessment (col. 3, ll. 33-36),

transmission of an electronic report and (col. 4, ll. 15-25) hosting a session of receiving expert assessment combining videoconference and remote manipulation (selective viewing, col. 3, ll. 30-35) of the three-dimensional (Collet-Billon teaches the 3D data, col. 2, ll. 55-60, col. 5, ll. 40-44) data.

As per claims 5 and 10, they recite substantially the same limitations as claim 3 above and analogous remarks apply, except for the following limitations:

a color camera (well known in the videoconferencing art)

a reproduction bank, Collet-Billon teaches multiple memory storage devices for 3D echographic data (fig. 1, element 8 or fig. 2, element 18 or fig. 3, element 38). All of these memory storage devices are clearly capable of later reproduction of the data.

color ink-jet printer (apparent to one of ordinary skill in the art that a color ink-jet printer can be connected to a workstation Collet-Billon, figure 3, element 34) or PC (Collet-Billon, figure 1, element 4).

As per claim 6, it recites substantially the same limitations as claim 1 above and analogous remarks apply.

As per claim 7, Collet-Billon teaches:

means for acquisition of a three-dimensional image (3D probe, fig. 1, element 3);

means for processing said three-dimensional image in a system according to Claim 1 (see rejection of claim 1);

and means for linking multiple physical devices (see rejection of claim 2).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following U.S. patent(s) refer(s) to transmission of medical images and videoconferencing: Fischer, 5502726, David et al., 5544649, Sloane, 5619991, Wood et al., 5715823, Jago et al., 5938607, Peifer et al., 5987519, Helbig, 6253245 B1, Salcudean et al., 6425865 B1.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Miller whose telephone number is (703) 306-9134. The examiner can normally be reached on Monday-Friday, Maxi-flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703) 308-6604. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

AMAU
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September 30, 2002

AMAU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600